

Notice of Allowability

Application No.

10/776,214

Examiner

Dismerly E Mercedes

Applicant(s)

MAYERGOYZ ET AL.

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10776214.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 12 February 0200 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/12/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 2/12/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

2. Claims 1-16 & 17-21 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Independent Claim 1 is allowable over Prior Art of Record, since the Prior Art, in particular, Fisher (US 5,841,601), Kornreich et al. (US 4,063,281), Wong et al. (US 5,818,806) taken alone or in combination does not teach or suggest a method for retrieving a signal corresponding to a distribution of magnetically polarized regions on a carrier of magnetically coated media means of a magnetoresistive transducer coupled to a read channel circuit, the retrieved signal being free from inter-symbol interference comprising the steps of: (b) constructing a spatial image of a response function of the magnetoresistive transducer by measuring said voltage signal at said output of the read channel circuit responsive to a known distribution of the magnetically polarized regions disposed on a first carrier of magnetically coated media; (c) constructing a spatial image of raw read signal data by measuring said voltage signal at said output of said read channel circuit responsive to an unknown distribution of the magnetically polarized regions disposed on a second carrier of the magnetic media; (d) constructing a spatial image of a distribution of virtual magnetic charge corresponding to said unknown distribution of the magnetically polarized regions on said second carrier of

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magnetically coated media by spatial deconvolution of said spatial image of said response function of the magnetoresistive transducer and said spatial image of said raw read signal data; rd (e) obtaining the retrieved intersymbol interference-free signal by spatially differentiating said spatial image of said distribution of virtual magnetic charge.

Independent Claim 17, is allowable over Prior Art of Record, since the Prior Art, in particular, Fisher (US 5,841,601), Kornreich et al. (US 4,063,281), Wong et al. (US 5,818,806) taken alone or in combination does not teach or suggest a method with the limitations as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Melas (US 6,678,105) discloses a non-linear equalization and decoding circuit and method using the same.
- Fisher (US 5,600,502) discloses an elimination of inter symbol interference-induced timing phase steps at sector start in PRML digital magnetic data storage.
- Hara (US 5,343,335) discloses a signal processing system having intersymbol interference canceling means and method of same.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dismery E Mercedes
Examiner
Art Unit 2651

DM *DM 4/14/25*


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600